Schena, Cristeen

From: Voorhees, Mark
Sent: Wednesday, August 02, 2017 11:05 AM
To: Murphy, Thelma (Hamilton)
Subject: perleys

Hi Thelma:

I ran through the all the technical materials again and came up with some points that support our position. I apologize for all the words. It helps me prepare for our visit tomorrow. It might make sense of us to say there are several pieces of information that collectively led us to this finding (weight of evidence). Let me know if you want to discuss more today. Otherwise, I shall see you in the morning tomorrow. Thanks
Mark

- Based on the information provided there is compelling evidence that support the finding that industrial activities are exposed to precipitation that result in SW runoff discharges at discreet points (locations 1 and 2) to surface waters of the US. The evidence that contributes to this finding includes:
    - Industrial activities occur beyond the containment pad because the pad is undersized for maintenance on larger boats that physically extend beyond the edges of the pad. Also, there is not a vertical containment system to prevent power-washing wash water with associated contaminants from being dispersed to the surrounding area beyond the containment pad's collection system. Dispersed contaminants from power washing operations are in areas exposed to precipitation and that generate surface runoff.
    - There is photographic evidence and testimony by R. Roseen that there have been other discharges from the containment pad flowing away from the collection system to the surrounding area. Contaminants associated with these discharges are exposed to precipitation and would be available for conveyance to surface waters during runoff events.
    - The low point (depressed area) on the south border of the property which drains an area of 0.38 acres has limited capacity to store runoff for infiltration into underlying soils. This is evidenced by the photos taken during two storm events with low rainfall amounts, 0.19 inches on 7/18/16 and 0.41 1nches 11/29/16. In both cases, the depressed area is filled to near capacity. It is likely that larger storm events that generate greater runoff volumes would exceed the capacity of the depressed area and overflow directly into the adjacent surface water (affirmed by modelling results discussed below). The hose study delivered 300 gallons of water to the depressed area over an hour, which is equivalent to a runoff depth of 0.03 inches from the contributing drainage area. This study was

insufficient to evaluate the capacity of the depressed area or to demonstrate that discharges (i.e. overflows) from the depressed area do not occur.

- There is photographic evidence by R. Roseen that a discreet discharge point occurs in the vicinity of location 1 (R. Paul). The contributing drainage area is the largest (0.42 acres) and includes area in front of the containment pad.
- The results of the continuous simulation hydrologic modelling analysis conducted by R. Roseen further support the finding that surface runoff discharges from the drainage areas that include areas of exposure to contaminants from industrial activities occur relatively frequently throughout a given year. The model reflects key hydrologic factors for estimating/predicting surface runoff events and estimates discharges for a wide range of precipitation depths. Moreover, and with respect to location number 2, the results indicate discharges volumes that far exceed the volumes observed and photographed in the depressed area on the 7/18/16/ and 11/29/16, which appeared to have been at near capacity during both of these small events.
- Extreme high tides flood a portion of the property and surface runoff discharge events occurring at such time would have direct connection to the surface waters.
- R. Paul in his email of 1/11/2016 reports that a discharge from the site to the receiving water occurred during a heavy rain the prior week. He reports that it was sheet flow but acknowledges a runoff discharge to surface water. Given that later documentation collected demonstrates contaminants from industrial activities are exposed to precipitation and available for conveyance during runoff events this confirmation of discharge to the surface waters seems significant.

Question?: R. Paul reports that the containment pad has a stormwater overflow drain for times when maintenance activities are not occurring. Where does this drain discharge? To adjacent land or a tank for recycling? Not clear. If to adjacent land then would this qualify as an industrial activity exposed to precipitation?